IN THE CLAIMS:

Please cancel non-elected claims 2-8 and 11-16 without prejudice or disclaimer.

Please amend claims 1 and 19 as indicated on the attached MARKED-UP PREVIOUS VERSION OF THE CLAIMS.

Please replace present claims 1 and 19 with the amended versions thereof, as presented on the attached CLEAN COPY OF AMENDED CLAIMS.

REMARKS

Applicants respectfully request reconsideration of this application, and reconsideration of Paper No. 11. Upon entry of this Amendment, claims 1, 9, 10, and 17-19 will remain pending in this application. Non-elected claims 2-8 and 11-16 have been cancelled. Claim 1 has been amended so that it only refers to the elected specie. Moreover, the amendment to claim 19 corrects a typographical error. Furthermore, no new matter is incorporated by this Amendment.

The amendments to the claims do not narrow the scope of the elected subject matter of the claims. Moreover, the changes to claim 1 and 19 do not present any new issues which require a new search and/or consideration. Applicant thus respectfully requests that the Amendment be entered and fully considered.

* * * * *

Claim 1 is objected to for containing non-elected subject matter. In response, Applicants have amended claim 1 by deleting the non-elected subject matter. Accordingly, withdrawal of the objection is respectfully requested.

* * *

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as purportedly indefinite.

The Office Action asserts that the recitation of "formula (IV)" in claim 19 renders the claim indefinite because there is no Formula (IV) in the elected process. In response, claim 19 has been amended to recite "formula (VI)." Applicants submit that the amendment to claim 19

was an obvious correction of an obvious typographical error as evidenced by the Examiner's statement that "Formula '(VI)' was apparently intended."

The amendment to claim 19 and above Remarks overcome this rejection. Thus, reconsideration and withdrawal of the rejection are respectfully requested.

* * *

Claims 1, 9, 10, and 17-19 are rejected under 35 U.S.C. 103(a) as purportedly obvious based on Zara et al. (GB 2 262 526). Applicants again respectfully traverse.

The Office Action asserts that even though example 41 of Zara does not anticipate the claimed invention, Zara renders the claimed invention obvious because hydrogen is expressly taught as a choice for this reaction.

Zara describes numerous processes for making pyridazinone derivatives. In the Final Office Action, the Examiner relies on Zara's general teaching that the general pyridazinone derivative used to make the final product can have numerous different constituents, including hydrogen, at the 2-position. Specifically, Zara discloses employing a pyridazinone compound having a general formula wherein R^1 (which is located at the two position) could be a multitude of different constituents. See Zara at page 1, line 9 to page 2, line 28. Applicants respectfully submit that these broad, general teachings in Zara fail to render *prima facie* obvious Applicants' more specifically claimed process.

Considering this rejection in the light most favorable to the Office, at best, Zara generically discloses a process for producing pyridazinone derivatives that generically encompasses the more narrow process recited in Applicants' claim 1.[1] Even if a claimed species or sub-genus is broadly encompassed by a prior art genus, however, this fact alone is not

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[1] While Applicants do not admit or necessarily agree that Zara generically encompasses the presently claimed invention, for purposes of the arguments that follow, Applicants will assume *arguendo* that the disclosure in Zara generically encompasses the claimed process and process gas.

sufficient to establish a *prima facie* case of obviousness. See, for example, *In re Baird*, 16 F.3d 380, 382, 29 U.S.P.Q. 2d 1550, 1552 (Fed. Cir. 1994) and *M.P.E.P.* § 2144.08. The Federal Circuit's decision in *Baird* prompted the U.S. PTO to issue guidelines to assist its examiners in properly applying 35 U.S.C. § 103 in a genus/sub-genus/species situation. These guidelines, which include a corresponding flowchart, are set forth in *M.P.E.P.* § 2144.08. This flow chart clearly illustrates the proper analytical procedure to be applied by U.S. PTO examiners in determining whether a generic prior art disclosure renders *prima facie* obvious a claimed sub-genus or species. Proper application of the guidelines in this case compels a finding that Applicants' claimed invention is not rendered *prima facie* obvious by Zara.

According to the guidelines, after considering the traditional *Graham v. John Deere* factors, one must consider whether the skilled artisan would have been motivated to select the claimed sub-genus or species. In this case, Applicants' claim 1 recites that the process employs a hydrogen bearing pyridazinone ring which as a hydrogen at the 2-position. As a first step in the § 103 analysis, one must consider the size of the genus disclosed in the reference and determine whether the reference inherently discloses the claimed combination. Zara discloses employing a pyridazinone having a general formula wherein R^1 (which is located at the two position) could be a multitude of different constituents. See Zara at page 1, line 9 to page 2, line 28. Many of the suggested constituent species are described as having numerous subspecies. Accordingly, the genus disclosed by Zara is not so small that each member thereof is inherently disclosed.

The next step in the § 103 analysis requires a determination of whether express teachings in the reference would have motivated selection of Applicants' claimed chemical compound. Again, the answer to this question is "no." In addition to the broad, generic teachings in Zara, as described above, nothing in Zara steers a person of ordinary skill in the art toward using a compound having a hydrogen at the 2-position. In fact, the only compound used by Zara which bears a resemblance to Applicant's compound has a methyl group at the 2-position. Zara uses such a compound because those of ordinary skill understood at the time of Zara that the methyl

group would protect against alkylation reactions. Applicants submit herewith two journal articles which show that those of ordinary skill in the art would not have been motivated to modify the teachings of Zara as suggested by the Office Action. Cho Su-Dong (J. Het. Chem., 35, 3, 601-606 (1998)) discloses that 4,5-dichloro-pyridazine-3-one can be alkylated on the N-2 nitrogen atom of the pyridazine ring with benzyl chloride in a dipolar aprotic solvent in the presence of potassium carbonate at 50° C with benzyl chloride with a yield of 92%. In addition, Nakagome (Chem. Pharm. Bull. 14, 1090 (1966)) discloses that alkylation of pyridazine-3-one derivatives takes place on the N-1 nitrogen atom of the pyridazine ring under formation of a quaternary salt. Thus, those of ordinary skill in the art would not have been motivated to use a hydrogen pyridazinone bearing ring compound in the methods described by Zara. Given the general knowledge of those of ordinary skill in the art, as evidenced by the two journal articles discussed above, there would have been no expectation of success. The methyl bearing pyridazinone ring of Zara is simply very different in its chemical properties from the hydrogen bearing ring used in Applicants' invention. Thus, no express teachings in the Zara patent would have motivated selection of Applicants' specifically claimed hydrogen bearing pyridazinone ring compound.

The guidelines indicate that the next step in the § 103 analysis requires consideration of whether the reference teaches structural similarity between the disclosed optimum or preferred prior art embodiments and the claimed sub-genus. As described above, the specific methyl bearing pyridazinone ring employed by Zara differs significantly from Applicants' claimed process which employs a hydrogen bearing pyridazinone ring. Nothing in Zara discloses or suggests that his process compounds are structurally similar to Applicants' very different process compounds.

The final step in the § 103 analysis requires consideration of whether any other teachings in the reference support selection of the claimed sub-genus. This is a final catch-all category that allows consideration of information not specifically considered in the remainder of the proper §

103 analysis. Other than Zara's broad, generic teachings, nothing in this document teaches or suggests selection of Applicants' specifically claimed sub-genus. Broad, generic teachings alone, however, are not sufficient to establish *prima facie* obviousness. *See In re Baird, supra* and *M.P.E.P.* § 2144.08.

In view of the foregoing, Applicants respectfully submit that the 35 U.S.C. § 103 analysis, using the U.S. PTO guidelines set forth in *M.P.E.P.* § 2144.08, compels a determination that Zara fails to render claims 1, 9, 10, and 17-19 *prima facie* obvious. Withdrawal of this rejection on this basis is respectfully requested.

* * * * *

Applicants respectfully submit that this Amendment and the above remarks obviate all of the outstanding rejections in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited.

If any fees are due in connection with the filing of this Request for Reconsideration, such as fees under 37 C.F.R. §§ 1.16 or 1.17, please charge the fees to our Deposit Account No. 02-4300; Order No. 032340.004.

Respectfully submitted,

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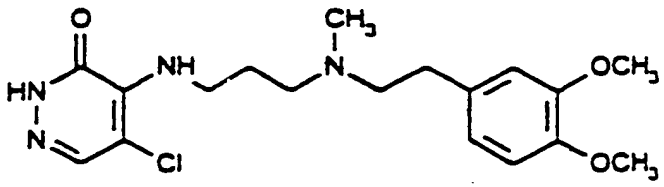
Dated: December 9, 2002
RGW/BLN

MARKED-UP PREVIOUS VERSION OF THE CLAIMS

1. (Amended) A process for the preparation of 5-chloro-4-{3-[n- [2- (3,4-dimethoxyphenyl) –ethyl] –N- methylaminol –propylamino} –3 (2H) – pyridazinone of the formula (I).

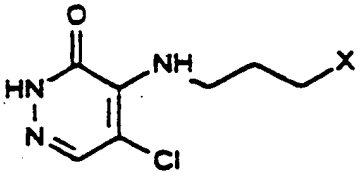


(I)

and pharmaceutically acceptable acid addition salts thereof,

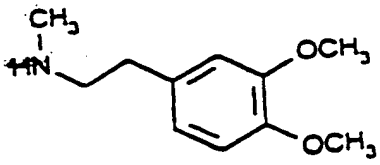
which comprises

a_1) reacting a compound of the general formula (II),



(II)

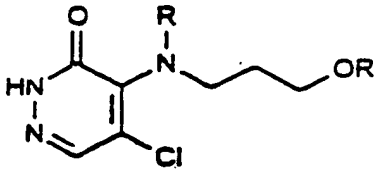
wherein X stands for a leaving group, with N-methyl-homoveratryl amine of the formula (VI);



(VI)

[or

a_2) reacting a compound of the general formula (III),

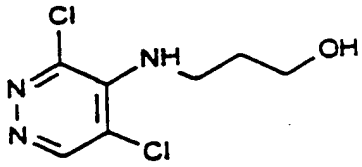


(III)

wherein R stand for lower alkanoyl, aroyl or aryl – (lower alkanoyl), with an agent containing a leaving group of the formula X and reacting the thus-obtained compound of the general formula (II) with the compound of formula (VI);

or

a_3) reacting 4- (3-hydroxyproplylamino) –3, 5-dichloro-pyridazine of the formula (IV);

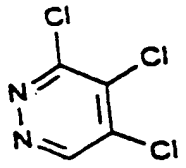


(IV)

with an agent suitable for introducing a group of the formula R, reacting the thus-obtained compound of general formula (III) with an agent containing a leaving group of the formula X and reacting the thus-obtained compound of general formula (II) with the compound of formula (VI);

or

a_4) reacting 3, 4, 5-trichloropyridazine of the formula (V)

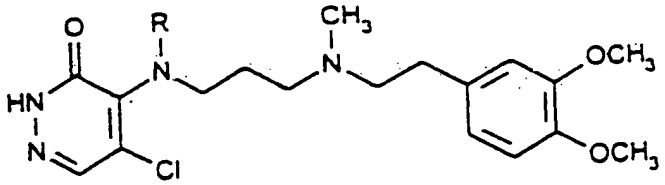


(V)

with 3-amino-1-propanol, reacting the thus-obtained compound of formula (IV) with an agent suitable for intruding a group of the formula R, reacting the thus-obtained compound of general formula (III) with an agent containing a leaving group of the formula X and reacting the thus-obtained compound of general formula (II) with a compound of the formula (VI);

or

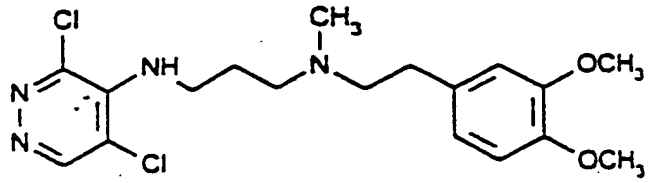
b_1) removing the group of the formula R (wherein R is as stated above) from a compound of general formula (IX);



(IX)

or

b_2) reacting the compound of formula (VIII)

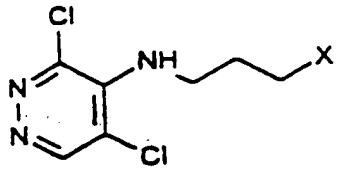


(VIII)

with an agent suitable for introducing a group of the formula R and removing the group of formula R from the thus-obtained compound of general formula (IX);

or

b_3) reacting a compound of the general formula (VII),



(VII)

wherein X is as sated above, with a compound of the formula (VI), reacting the thus-obtained compound of formula (VIII) with an agent suitable for introducing a group of the formula R, and removing the group of the formula R from the thus-obtained compound of general formula (IX); or

b_4) reacting the compound of formula (IV) with an agent containing a leaving group of the formula X, reacting the thus-obtained compound of general formula (VII) with the compound of formula (VI), reacting the thus-obtained compound of general formula (VIII) with an agent suitable for introducing a group of the formula R and removing the group of the formula R from the thus-obtained compound of general formula (IX);

and, if desired, converting the thus-obtained compound of formula (I) into an acid addition salt thereof].

19. (Amended) A process as claimed in claim 10, wherein the amine is triethylamine or an excess of the reagents of formula ([IV] VI).